

Work Order ID 98846

March-27-13 7:30:03 AM

\*98846\*

PRELIMINARY ISSUE

Page 1

Item ID: D4789-1  
Revision ID: PRELIM  
Item Name: Upper Clevis

Accept

\*N900040100\*

Setup Start \*NS1\*

Stop \*NS2\*

Start Date: 3/27/13 Start Qty: 2.00 \*2\*

Cust Item ID:

Required Date: 4/10/13 Req'd Qty: 2.00 \*2\*

Customer:

Reference:

Approvals: Process Plan: MLS Date: 13-03-27

Tooling: Date:

Run Start \*NR1\*

QC: Date: SPC (Y/N): Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4789	<u>PAS</u>

100		0.00
-----	--	------

\*100\*

BAND SAW

Bandsaw	Memo	0.00
---------	------	------

Jeaspa Bandsaw	Cut blank: 3.250" long
----------------	------------------------

110		0.00
-----	--	------

\*110\*

HAAS CNC VERTICAL MACHINING #1

HAAS 1	Memo	0.00
--------	------	------

HAAS CNC vertical machine #1	1- Machine as per Folio FB170
------------------------------	-------------------------------

FOLIO REV: AA  
DWG REV: PAS

- Deburr

DA 13/03/29

2 0 DAS  
08  
8-89

# Work Order ID 98846

March-27-13 7:30:03 AM

**\*98846\***

Page 2

Item ID: D4789-1  
Revision ID: PRELIM  
Item Name: Upper Clevis

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Stop **\*NS2\***

Start Date: 3/27/13 Start Qty: 2.00 **\*2\***  
Required Date: 4/10/13 Req'd Qty: 2.00 **\*2\***

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC2- Inspect parts off machine FAI/FAIB  Memo	0.00  0.00		B.A 13/03/29		2	0		DAS 08 9-89
130 <b>*130*</b> QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00				2			JL13-3-31
140 <b>*140*</b> HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00  0.00				2			NA 134-1

# Work Order ID 98846

**\*98846\***

Page 3

Item ID: D4789-1  
Revision ID: PRELIM  
Item Name: Upper Clevis

Accept

**\*N900040100\***

Setup Start **\*NS1\***  
Stop **\*NS2\***

Start Date: 3/27/13 Start Qty: 2.00 **\*2\***  
Required Date: 4/10/13 Req'd Qty: 2.00 **\*2\***

Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***  
Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 <b>*150*</b> QC Quality Control	QC7-Inspect Chemical Conversion Coat  Memo	0.00 16 0.00		13.104101 to PAS Dug wh					
170 <b>*170*</b> Packaging Packaging	Identify as per dwg & Stock Location: _____  Memo	0.00  0.00							
180 <b>*180*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							

POSITIVE RECALL

EFFECTIVE 3/3/13 AUTH W

RELEASED \_\_\_\_\_ DATE \_\_\_\_\_

MF  
13-4-02

# Picklist Print

March-27-13 7:30:07 AM

Work Order ID: 98846

\*98846\*

Parent Item: D4789-1

\*D4789-1\*

Parent Item Name: Upper Clevis

Start Date: 3/27/13

Required Date: 4/10/13

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP REV:A NEW ISSUE 13-03-08 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6B2.000X04.00  
0

Purchased

No

f

17.1900

0.568421

\*M6061T6B2 000X04 000\*

6061T6 Bar 2.00 x 4.00

\*\*

.552'

13-03-28

Location

Loc Qty

Loc Code

MAT009

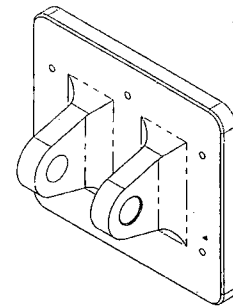
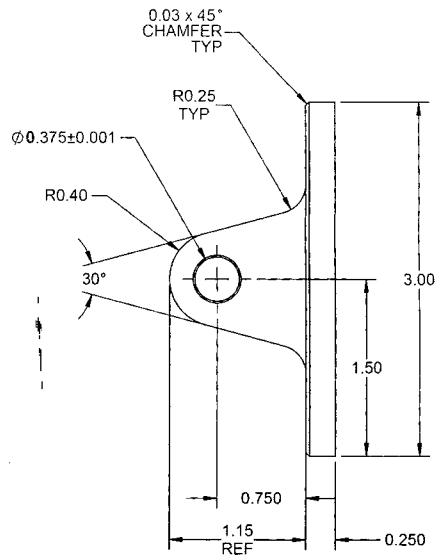
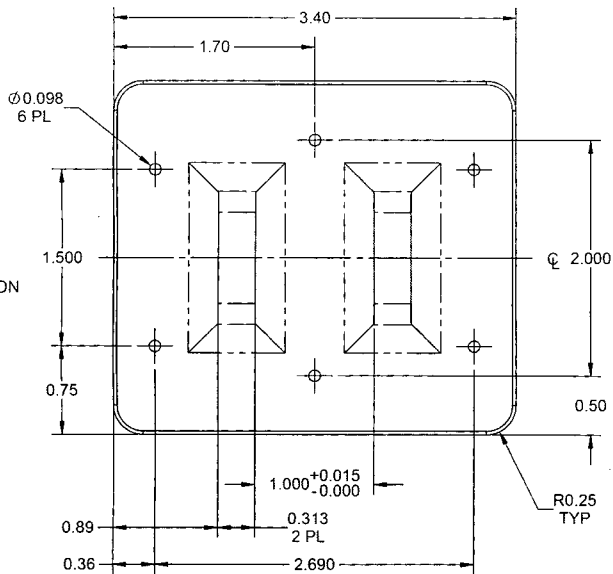
17.19

111447

17.19

.552'

GRAIN  
DIRECTION



# **D4789-1 UPPER CLEVIS**

## **NOTES:**

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR  
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)  
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)  
OR ASTM B211 OR ASTM B221  
REF DART SPEC M6061B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.31 lbs

SHR 007  
REV 001  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO CHANGE  
WITHOUT NOTICE  
WORK ORDER  
9-8846-MLJ  
13-03-24

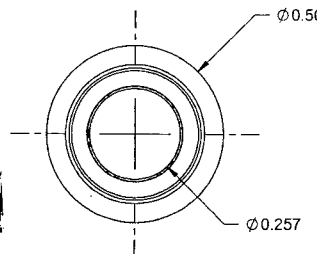
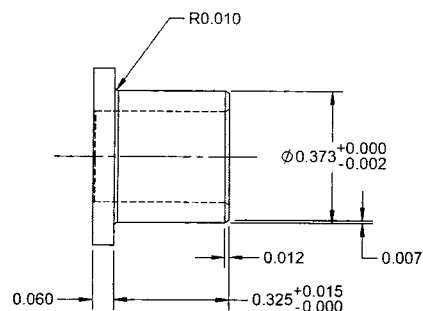
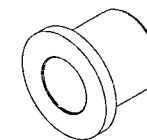
## **PRELIMINARY ISSUE**

13.03.02

PA5	NEW ISSUE	RF	13.03.02
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DC	DRAWING NO.	REV. PA5
MFG. APPR.		D4789	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		CLEVIS	NTS
DATE	13.03.02	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



98846



**D4789-5 BUSHING**

**PRELIMINARY ISSUE**

13.03.02

**NOTES:**

- 1) MATERIAL: AISI 303/304/316 SS ROUND BAR  
ASTM A582 OR ASTM A276  
REF DART SPEC M303R OR M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 006 4.1
- 7) WEIGHT: 0.01 lbs

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	BC	DRAWING NO. <b>D4789</b>	REV. PA5 SHEET 3 OF 3
MFG. APPR.		TITLE <b>CLEVIS</b>	SCALE NTS
DE APPR.		<small>COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	
DATE	13.03.02		

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 98846
<b>Description:</b> UPPER CLEVIS	<b>Part Number:</b> D4789-1
<b>Inspection Dwg:</b> D4789 <b>Rev:</b> PA5	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.40	+/- .030	3.401	✓		Vern	GA-01
1.70	+/- .030	1.700	✓		"	"
φ0.098	+0.004 / -0.001	φ0.100	✓		"	"
1.500	+/- .010	1.500	✓		"	"
0.75	+/- .030	0.750	✓		"	"
0.89	+/- .030	0.887	✓		H-6	31006
0.36	+/- .030	0.356	✓		"	"
2.690	+/- .010	2.690	✓		Vern	GA-01
0.313	+/- .010	0.310	✓		"	"
1.000	+0.015 / -0.000	1.002	✓		"	"
R0.25	+/- .030	R0.250	✓		R-6	ref.
0.50	+/- .030	0.500	✓		H-6	31006
2.000	+/- .010	2.000	✓		Vern	GA-01
0.03 x 45°	+/- .030	0.030 x 45°	✓		"	"
R0.25	+/- .030	R0.250	✓		R-6	ref.
φ0.375	+/- .001	φ0.3755	✓		Mic	GA-03
0.750	+/- .010	0.749	✓		H-6	31006
0.250	+/- .010	0.249	✓		Vern	GA-01
1.50	+/- .030	1.501	✓		"	"
3.00	+/- .030	3.001	✓		"	"

<b>Measured by:</b> J.A. DAS 08 08	<b>Audited by:</b> SL	<b>Preliminary Approval:</b>
<b>Date:</b> 13/03/29	<b>Date:</b> 13-3-31	<b>Date:</b>

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	

10.04.15



## Receiving Report

Date: 7/4/16

Batch No: M11K47

Supplier: MAGNA

Dart P/O: 8535

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☐ No ☒  
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐  
 Waybill Attached: Yes ☐ No ☒ N/A ☐  
 Shipment Complete: Yes ☒ No ☐ N/A ☐  
 QCS Inspection ☒ N/A ☐  
 Work Order 1346705 09/04/17

### Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments
M414NB	625X040	24	0	0	24	
M304TR	625W091	100	0	0	100	
M705T6B	100-6050	12	0	0	12	

M705T73 R100

Initials of receiver (if shipment OK) 24 Level 12 24

Production/Admin:

Date

Received/Costing

Initial

09/04/17  
RCY 10744  
CS

Location \_\_\_\_\_

**Dart Aerospace Ltd**

Dart Aerospace Ltd  
1270 Aberdeen St  
Hawksbury, Ontario K6A 1K7  
Phone: (613) 632-3336  
Fax: (613) 632-4443

**Receiving Slip**

Date Apr 17, 2009	Page 1
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Receipt Number RCP00010744
-------------------------------

**Purchase From:**

Magna Stainless  
5775 rue Kieran  
St Laurent, Quebec H4S 0A3  
Canada

**Ship To:**

Main Finished Goods Location  
Dart Aerospace Ltd  
1270 Aberdeen St  
Hawksbury, Ontario K6A 1K7

Reference	Description	Contact	Vendor Number	PO Number
			VC-MAG002	PO00008535

Vendor Item Number	Item Number	Description	Qty. Received	UOM	Unit Cost	Extended Cost	Arrival Date
	D6207P	Angle Extrusion 1x1x.12 B46909 MINIMUM YIELD TENSILE STRENGTH = 35 KSI MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI MATERIAL: 6061-T6 OR 6511 (QQ-A-200/8) ANGLE EXTRUSION: 1" X 1" X .125" AS PER DWG D6207 REV. A	60.0000	f	0.650000	39.00	Apr 17, 2009
	M6061T6B2000X0	B/N46909 6061T6 Bar 2.00 x 4.00 4116 OR PER AMS-QQ-A-200/8 OR AMS 4160 BAR PER AMS-QQ-A-225/8 OR AMS 4117/4128/4115 MATERIAL: 6061-T6 OR 6061-T651/T6510/T6511/T62 B/N111447	20.0000	f	20.100000	402.00	Apr 17, 2009

**Comments:**





# Magna Stainless

5775 Kieran St, Saint-Laurent, Quebec H4S 0A3  
Phone: (514) 339-1211 Watts: 1-800-363-6646 Fax: (514) 339-1105

## PACKING LIST

I009679

Page: 1 of 1

SOLD TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET

HAWKESBURY, ON  
K6A 1K7  
Contact: CHANTAL

SHIP TO:  
DART AEROSPACE LTD  
1270 ABERDEEN STREET

HAWKESBURY, ON  
K6A 1K7  
Ship Terms: PREPAID

MTR: Y

SPECIAL INSTRUCTIONS

Contact: CHANTAL		Ship Terms: Prepaid			
Currency	Sales Person	Customer Phone	Customer Fax	Customer PO	
CANADIAN DOLLARS	ERYCK BLAIS	(613) 632-5200	(613) 632-1053	8535	
Sales Order	Terms	Ship Via	Date Ordered	Date Required	Date Shipped
W010589	NET 30 DAYS	NIR:R-557065-1	04/09/09	04/16/09	04/16/09

Ordered	Back Ordered	Unit	Description	Bundle #	Heat #	Shipped
3		PC	ALUMINUM ANGLES AAN 6061 T6 1" x 1" x 1/8" x R/L ✓ 20' 18 LB / 3 PC MUST USE HT: 5850	L020459	5850	3
1		PC	ALUMINUM FLATS AFL 6061 T6 2" x 4" x R/L ✓ 20' 192 LB / 1 PC MUST USE HT: 0724302	L025024	0724302	1
Bundles: 1		Pieces: 1		Total Weight:		210 LB

Received by:

Date:

Signature:

*29/9/16*

# DART

## Purchase Order

Date Apr 08, 2009	Page 1
Purchase Order Number PO00008535	

Dart Aerospace Ltd  
1270 Aberdeen St  
Hawksbury, Ontario K6A 1K7  
Phone: (613)632-9577  
Fax: (613)632-1053

**FAKED**  
(613)632-1053

**Vendor Address:**

Magna Stainless  
5775 rue Kieran  
St Laurent, Quebec H4S 0A3  
Canada  
Phone (514) 339-1211  
Fax (514) 339-1105

**Ship To:**

Main Finished Goods Location  
Dart Aerospace Ltd  
1270 Aberdeen St  
Hawksbury, Ontario K6A 1K7

Reference	Contact	Vendor Number	PO Date	Terms	Ship Via	Expected Arrival
		VC-MAG002	Apr 08, 2009	N30	yours	Apr 16, 2009

Qty. Ordered	Item Number	Description	Expected Arrival	Drop-Ship	Unit Cost	UOM	Extended Price
✓ 60.0000 9/7/11	D6207P	Angle Extrusion 1x1x.125 Comments: AS PER DWG D6207 REV. A ANGLE EXTRUSION: 1" X 1" X .125" MATERIAL: 6061-T6 OR 6511 (QQ-A-200/8) MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI MINIMUM YIELD TENSILE STRENGTH = 35 KSI B46909	16/04/2009	No	0.650000	f	39.00
24.0000	M4140NB0625X0400	4140 Steel Bar .625 x 4.00 Comments: MATERIAL: 4140 AS PER CF LP ANN BAR PER ASTM A 331 / A 108	16/04/2009	No	29.166666	f	700.00
100.0000	M304TR0675W091	304 RD Tube .675 x .091 Comments: MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING OR SCHEDULE 40 SEAMLESS	16/04/2009	No	6.750000	f	675.00
✓ 20.0000 9/7/11	M6061T6B2000X040	6061T6 Bar 2.00 x 4.00 Comments: MATERIAL: 6061-T6 OR 6061-T651/T6510/T6511/T62 BAR PER AMS-QQ-A-225/8 OR AMS 4117/4128/4115 4116 OR PER AMS-QQ-A-200/8 OR AMS 4160	16/04/2009	No	20.100000	f	402.00
12.0000	M7075T6B1500X150	7075 T6 BAR 1.500 x 1.5 Comments: MATERIAL: 7075-T6 OR T651/T6510/T6511/T62 ALUMINUM BAR PER AMS- QQ-A-225/9 OR AMS 4122/4123/4186/4187 OR PER AMS-QQ-A-200/11	16/04/2009	No	16.250000	f	195.00
24.0000	M7075T73R1000	7075-T73 Rd Bar 1.00 Comments: MATERIAL: 7075-T6 OR T651/T6510/T6511/T652 OR T62 ROUND BAR PER AMS-QQ-A-225/9 OR AMS 4122	16/04/2009	No	9.166666	f	220.00

MATERIAL CERTIFICATION  
REQ'D UPON DELIVERY

Continued on next page...

# PANASIA ALUMINIUM (CHINA) LIMITED

## Aluminium Mill Certificate

Cert No: PAAV/MC0806005

CUSTOMER: ASA Alloys Inc

PO No: 072216JB

Contract No: NIL

Alloy & Temper: 6061-T6511

Standards: ASTM-B221

QCA-290/8

Container No: ZCS93009360

Date of shipment: 2008.08.08

66743  
66744  
66745  
66750  
66751  
66752

### Chemical Composition (%)

Heat No	Si	Mg	Fe	Cu	Mn	Zn	Cr	Ti	Al
Standard	0.40-0.80	0.80-1.20	0.7max	0.15-0.40	0.15max	0.25max	0.04-0.35	0.15max	Rem.
2008072301	0.673	0.871	0.256	0.193	0.038	0.035	0.095	0.019	Rem.
2008072301	0.671	0.872	0.254	0.195	0.037	0.031	0.091	0.017	Rem.
2008072301	0.675	0.863	0.253	0.194	0.034	0.033	0.092	0.016	Rem.
2008072302	0.672	0.863	0.255	0.197	0.035	0.034	0.094	0.010	Rem.
2008072401	0.670	0.864	0.259	0.192	0.033	0.032	0.093	0.012	Rem.
2008071102	0.672	0.870	0.252	0.195	0.036	0.030	0.096	0.016	Rem.

### Tensile Test Result

Heat No	Die No	Customer part No	Description	Tensile Strength N/mm <sup>2</sup> 250mm	Yield Strength N/mm <sup>2</sup> 250mm	Elongation % 10mm
2008072301	T10008		1 x 0.095 Sq Tube Sq. Corner	295	265	12.3
2008072301	F10000044		3/8 x 3 Flat bar Sharp Corner	295	260	12.1
2008072301	F100030		1 x 3 Flat bar Sharp Corner	285	260	12.0
2008072302	F10000067		2 x 4 Flat bar Sharp Corner	290	270	12.4
2008072401	T100039		3/4 x 120 Sq Tube Sq. Corner	290	270	12.2
2008071102	T10026		1 x 0.125 Sq Tube Sq. Corner	285	265	12.5

070417

### Hardness Test Result

Section No	HRB	Hardness	Other Remarks
T100035	91	15.5	
F10000044	91	15.6	
F100030	90	15.3	
F10000067	90	15.3	
T100038	92	15.9	
T10026	92	15.9	

The above result was done on testing samples and the mill shall guarantee the same quality for the shipment of product. It is certified that this material complies in all respects to the requirements of the above standards listed herein.

QC: Xiaoduan Zhang

Checked by: XUDUAN LUO

